ABSTRACT OF THE DISCLOSURE

A processor of a transceiver estimates a communication distance to an opposing ADSL modem apparatus by detecting a reception level of a REVERB signal in accordance with the ITU-T regulated G.992.1 or G. 992.2. Based on the estimated communication distance, and by referring to a table showing attenuation of signal energy (stored in a RAM), the signal energy in a high frequency band (among the signal energy assigned to transmitting signals) is concentrated into a low frequency band during the communication.